



Test Report
(SVHC)

No.: GZ0812169367/CHEM

Date: JAN 08, 2009

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FOSHAN SHUNDE DAHUA ELECTRIC CO., LTD
NO.16 GONGYE ROAD BEIJIAO TOWN SHUNDE DISTRICT FOSHAN CITY

The following sample(s) was/were submitted and identified on behalf of the applicant as CAPACITOR HD-X₂

SGS Job No. : GZ11532663EC
SGS Internal Reference No. : 4.3
Date of Sample Received : DEC 30, 2008
Testing Period : DEC 30, 2008 TO JAN 08, 2009

Test Requested : Fifteen (15) Substances of Very High Concern (SVHC) analysis
SVHC list based on the publication by European Chemicals Agency (ECHA) on 2008 October
28, regarding Regulation (EC) No 1907/2006 concerning the REACH

Test Result(s) : Please refer to next page(s).

Summary : According to the specified scope and analytical technique, concentrations of all 15 SVHC are
<0.1% in the submitted sample(s).

Signed for and on behalf of
SGS-CSTC Ltd.

Huang Fang, Sunny
Sr. Engineer

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Test Sample:

PART NAME NO. 1 : "CAPACITOR HD-X₂" (mixed all part)

Description	Weight %
	NO. 1
Metal	0%
Plastic / Rubber	0%
PCB / Composite	0%
Non-Metal and Non-Plastic	0%
Chemical substance or preparation	0%
Other	100%

Remark:

1. The sample as received is tested as composite mixture (>0.1% w/w of the sample composition listed in this report).
2. Definition of classification is listed in **Appendix A** of this report in accordance with 67/548/EEC and Regulation (EC) No 1907/2006.

Test Method:

With reference to US EPA 3050B: 1996, US EPA 3051A: 2007, US EPA 3052: 1996, US EPA 8270D: 2007, ISO 17353:2004-9, EN 14362-1: 2003, ZEK 01.1-08, EN 14372: 2004, EPA 3550C: 2007, EPA 3540C: 1996, EPA 3060A: 1996 and analyzed by ICP/MS & ICP/OES and GC/MS.

Remarks:

1. The chemical analysis of 15 SVHC is performed by means of currently available analytical techniques against the list published by ECHA on 2008 October 28, and shall refer to http://echa.europa.eu/consultations/authorisation/svhc/svhc_cons_en.asp. This list is under evaluation by ECHA and may subject to change in the future.
2. In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance is present in those articles above a concentration of **0.1%** weight by weight (w/w).
3. Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above **0.1%** weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.
4. If a SVHC is found over the reporting limit, client is suggested to identify the component which contains the SVHC and the exact concentration of the SVHC by requesting further quantitative analysis from the laboratory.

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Test Result(s):

Substance Name	CAS number	Unit	Concentration	RL	Classification
Anthracene	120-12-7	%	N.D.	0.005	PBT
4,4' - Diaminodiphenylmethane	101-77-9	%	N.D.	0.005	Carcinogen Category 2
Dibutyl phthalate (DBP)	84-74-2	%	N.D.	0.005	Toxic to Reproduction Category 2
Benzyl butyl phthalate (BBP)	85-68-7	%	N.D.	0.005	Toxic to Reproduction Category 2
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	%	N.D.	0.005	Toxic to Reproduction Category 2
5-tert-butyl-2,4,6-trinitro- m-xylene (Musk Xylene)	81-15-2	%	N.D.	0.005	vPvB
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α - HBCDD, β -HBCDD, γ -HBCDD)	25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8)	%	N.D.	0.005	PBT
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	%	N.D.	0.01	PBT
Bis(tributyltin)oxide**	56-35-9	%	N.D.	0.005	PBT
Cobalt dichloride*	7646-79-9	%	N.D.	0.05	Carcinogen Category 2
Diarsenic pentaoxide*	1303-28-2	%	N.D.	0.05	Carcinogen Category 1
Diarsenic trioxide*	1327-53-3	%	N.D.	0.05	Carcinogen Category 1
Triethyl arsenate*	15606-95-8	%	N.D.	0.05	Carcinogen Category 1
Lead hydrogen arsenate*	7784-40-9	%	N.D.	0.05	Carcinogen Category 1; Toxic to Reproduction Category 1
Sodium dichromate*	7789-12-0, 10588-01-9	%	N.D.	0.05	Carcinogen Category 2; Mutagen Category 2; Toxic to Reproduction Category 2

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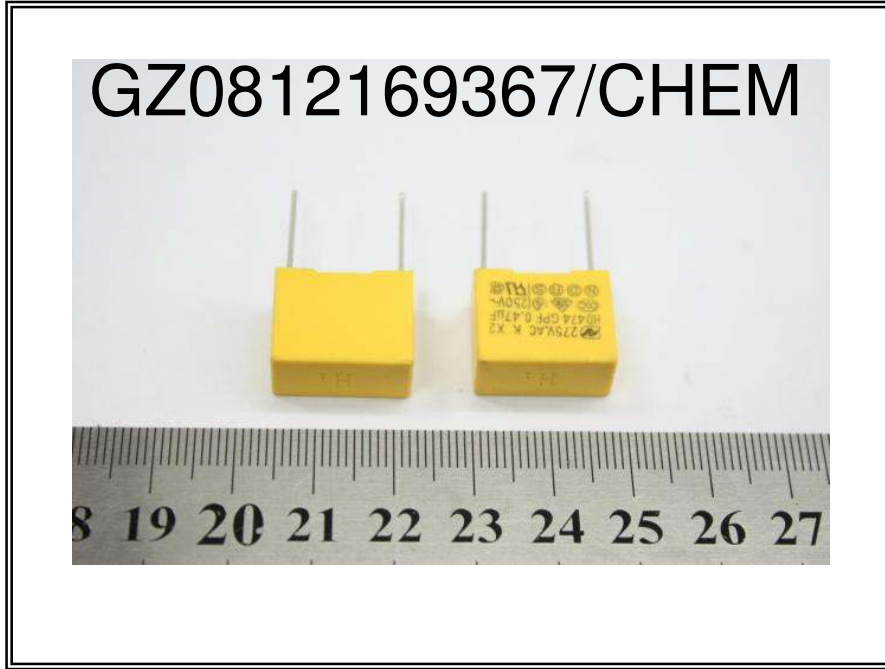
Remark:

- * = Calculated concentration of cobalt dichloride is based on the identified heavy metal and anion result. Calculated concentration of diarsenic pentaoxide, diarsenic trioxide, sodium dichromate, lead hydrogen arsenate and triethyl arsenate are based on the identified heavy metal result.
Identity of above metal substances present in the article has to be further confirmed.
- ** = Calculated concentration of bis(tributyltin)oxide TBTO is based on the identified tributyltin, TBT results. The result is a screening test of TBTO and can cover TBTO and other salts under current technologies. Further investigation is required if the exact amount of TBTO has to be determined.
- mg/kg = ppm; 0.1% = 1000 ppm
- N.D=Not Detected (Less than RL)
- RL = Reporting Limit

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Sample photo :



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Appendix A

Classification	Definition under 67/548/EEC and Regulation (EC) No 1907/2006
Carcinogen Category 1:	Substances known to be carcinogenic to man. There is sufficient evidence to establish a causal association between human exposure to a substance and the development of cancer.
Carcinogen Category 2:	Substances which should be regarded as if they are carcinogenic to man. There is sufficient evidence to provide a strong presumption that human exposure to a substance may result in the development of cancer. Generally on the basis of: - appropriate long-term animal studies - other relevant information.
Mutagen Category 1:	Substances known to be mutagenic to man. There is sufficient evidence to establish a causal association between human exposure to a substance and heritable genetic damage.
Mutagen Category 2:	Substances which should be regarded as if they are mutagenic to man. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in the development of heritable genetic damage, generally on the basis of: - appropriate animal studies, - other relevant information.
Toxic to Reproduction Category 1:	Substances known to impair fertility in humans. There is sufficient evidence to establish a causal relationship between human exposure to the substance and impaired fertility. Substances known to cause developmental toxicity in humans. There is sufficient evidence to establish a causal relationship between human exposure to the substance and subsequent developmental toxic effects in the progeny.
Toxic to Reproduction Category 2:	Substances which should be regarded as if they impair fertility in humans. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in impaired fertility on the basis of: - clear evidence in animal studies of impaired fertility in the absence of toxic effects, or, evidence of impaired fertility occurring at around the same dose levels as other toxic effects but which is not a secondary nonspecific consequence of the other toxic effects, - other relevant information. Substances which should be regarded as if they cause developmental toxicity to humans. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in developmental toxicity, generally on the basis of: - clear results in appropriate animal studies where effects have been observed in the absence of signs of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not a secondary non-specific consequence of the other toxic effects, - other relevant information.
PBT & vPvB:	Substances which are persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) pose a particular challenge to the chemicals safety management. For these substances a "safe" concentration in the environment cannot be established with sufficient reliability.

*** End of Report ***

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